```
=> fil reg; d sta que l9; fil capl; d que nos l18
FILE 'REGISTRY' ENTERED AT 11:31:11 ON 01 JUL 2005
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provided by InfoChem.

STRUCTURE FILE UPDATES:   30 JUN 2005  HIGHEST RN 853560-59-5
DICTIONARY FILE UPDATES:  30 JUN 2005  HIGHEST RN 853560-59-5

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH JANUARY 18, 2005

  Please note that search-term pricing does apply when
  conducting SmartSELECT searches.

**********************************************************************
*                                                                    *
* The CA roles and document type information have been removed from *
* the IDE default display format and the ED field has been added,    *
* effective March 20, 2005.  A new display format, IDERL, is now     *
* available and contains the CA role and document type information. *
*                                                                    *
**********************************************************************

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. For more
information enter HELP PROP at an arrow prompt in the file or refer
to the file summary sheet on the web at:
http://www.cas.org/ONLINE/DBSS/registryss.html

L9              STR
```

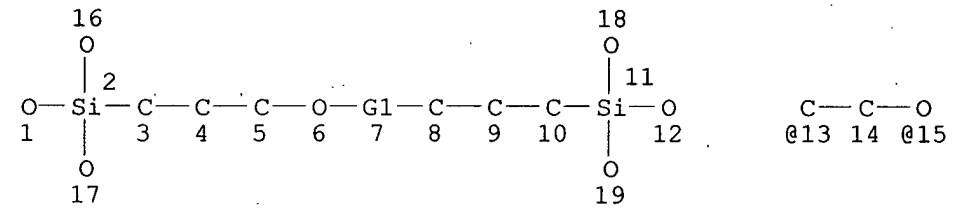


```
REP G1=(4-20) 13-6 15-8
NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS  19

STEREO ATTRIBUTES: NONE


FILE 'CAPLUS' ENTERED AT 11:31:11 ON 01 JUL 2005
```

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FILE COVERS 1907 - 1 Jul 2005 VOL 143 ISS 2
FILE LAST UPDATED: 30 Jun 2005 (20050630/ED)

New CAS Information Use Policies, enter HELP USAGETERMS for details.

This file contains CAS Registry Numbers for easy and accurate substance identification.
'OBI' IS DEFAULT SEARCH FIELD FOR 'CAPLUS' FILE

L9 STR
L17 1 SEA FILE=REGISTRY SSS FUL L9
L18 1 SEA FILE=CAPLUS ABB=ON L17

=> d ibib ed abs hitstr l18

L18 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2003:727567 CAPLUS
DOCUMENT NUMBER: 139:388360
TITLE: Microcontact Printing Using Poly(dimethylsiloxane) Stamps Hydrophilized by Poly(ethylene oxide) Silanes
AUTHOR(S): Delamarche, Emmanuel; Donzel, Christian; Kamounah, Fadhil S.; Wolf, Heiko; Geissler, Matthias; Stutz, Richard; Schmidt-Winkel, Patrick; Michel, Bruno; Mathieu, Hans Joerg; Schaumburg, Kjeld
CORPORATE SOURCE: Zurich Research Laboratory, IBM Research, Rueschlikon, 8803, Switz.
SOURCE: Langmuir (2003), 19(21), 8749-8758
CODEN: LANGD5; ISSN: 0743-7463
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English
ED Entered STN: 17 Sep 2003
AB The patterning of a surface using microcontact printing (μCP) generally employs a hydrophobic micropatterned stamp made from poly(dimethylsiloxane) (PDMS) to place ink mols. on a surface with spatial control. The authors present a simple procedure to hydrophilize PDMS stamps based on the O2 plasma oxidation of PDMS (referred to as PDMSox) and the grafting of poly(ethylene oxide) silanes (PEO-Si) to the oxidized surface. The wetting properties of a PDMSox surface derivatized with PEO having none, one, or two silanes and having chains with 7-70 EO units are inspected. All PDMSox surfaces treated with PEO-Si are hydrophilic and have advancing and receding contact angles of .apprx.40° and .apprx.30°, resp. These surfaces remain hydrophilic for periods

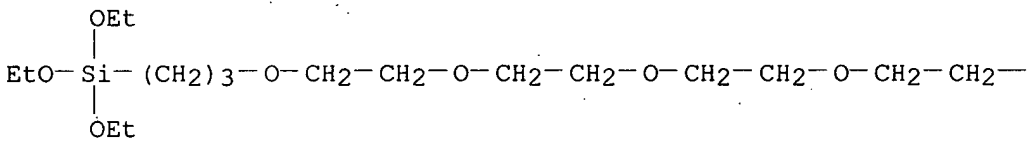
longer than 7 days, which saves having to hydrophilize stamps freshly prior to their usage. In particular, grafting a PEO having two triethoxysilane end groups and a mol. weight (MW) of 3400 g mol-1 enables inking and microcontact printing a polar Pd/Sn catalyst for electroless deposition (ELD) from a stamp to an amino-functionalized glass surface. The printed pattern of colloids has high accuracy and contrast, as reflected by the selective ELD of NiB in the printed regions of the glass. The same stamp can be reused for many cycles of inking and printing without degradation of the quality of the final NiB patterns. The hydrophilic layer provided by the grafted PEO mols. is, in some cases, not sufficiently thick to incorporate and print enough polar ink to form a complete monolayer of cysteamine, for example, onto printed Au substrates. Oxidizing a planar PDMS surface through a mask permits the patterning of PEO onto PDMSox. It then becomes possible to ink the stamp with proteins either by depositing proteins from solution onto the areas left underivatized with PEO or by printing proteins in the PEO-derivatized areas only. The proteins on the planar PDMS/PDMSox-PEO surface in turn are microcontact printed with high accuracy onto glass. This work may help expand μCP to applications in which it is desirable to use polar inks or proteins.

IT **623933-43-7P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(silylation with triethoxysilane in presence of hexachloroplatinic acid)

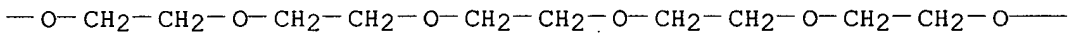
RN 623933-43-7 CAPLUS

CN 3,8,11,14,17,20,23,26,29,32,35,38,41,44,47,50,53,56,59,62,67-Heneicosaoxa-4,66-disilanonahexacontane, 4,4,66,66-tetraethoxy- (9CI) (CA INDEX NAME)

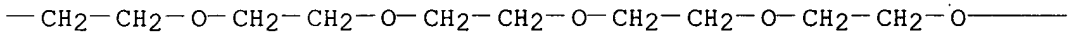
PAGE 1-A



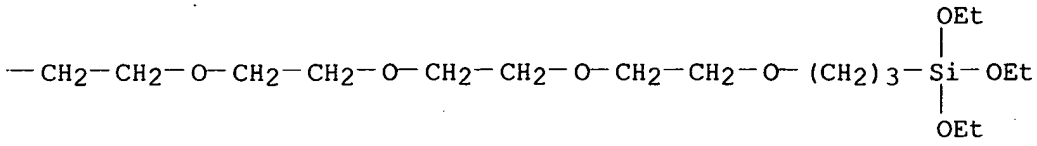
PAGE 1-B



PAGE 1-C



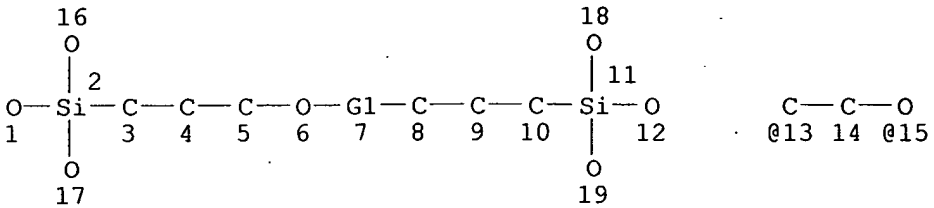
PAGE 1-D



REFERENCE COUNT: 69 THERE ARE 69 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> fil hom
FILE 'HOME' ENTERED AT 11:31:35 ON 01 JUL 2005

```
=> d sta que l9; d his full
L9              STR
```




```
REP G1=(4-20) 13-6 15-8
NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS  19

STEREO ATTRIBUTES: NONE



     (FILE 'HOME' ENTERED AT 10:48:49 ON 01 JUL 2005)

     FILE 'REGISTRY' ENTERED AT 10:48:53 ON 01 JUL 2005
L1              STR
L2            0 SEA SSS SAM L1
L3           25 SEA SSS FUL L1
                SAVE TEMP L3 NYA419FULL/A
L4              ANALYZE L3 1- LC :      10 TERMS
                D

     FILE 'REGISTRY' ENTERED AT 10:52:41 ON 01 JUL 2005
                D STAT QUE L3

     FILE 'CAPLUS, USPATFULL, CASREACT' ENTERED AT 10:52:41 ON 01 JUL 2005
L5           39 SEA ABB=ON  L3
L6           37 DUP REM L5 (2 DUPLICATES REMOVED)
                     ANSWERS '1-34' FROM FILE CAPLUS
                     ANSWERS '35-37' FROM FILE USPATFULL
                D IBIB ED ABS HITSTR 1-37

     FILE 'CAOLD' ENTERED AT 10:53:19 ON 01 JUL 2005
L7            2 SEA ABB=ON  L3
                D IALL HITSTR 1-2

     FILE 'HOME' ENTERED AT 10:53:35 ON 01 JUL 2005
                D SAVED

     FILE 'CAOLD' ENTERED AT 10:53:51 ON 01 JUL 2005
                D L7 PAGE 1
                D L7 PAGE 2
                D STAT QUE L3

     FILE 'CAPLUS' ENTERED AT 11:10:17 ON 01 JUL 2005
                SET LINE 250
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                SET DETAIL OFF
                E US2003899419/AP,PRN 25
                E US2003-899419/AP,PRN 25
                E US2004-899419/AP,PRN 25
                SET LINE LOGIN
                SET DETAIL LOGIN
                E YACOUB/AU
                E YACOUB K/AU
L8           13 SEA ABB=ON  YACOUB K?/AU
                D SCAN TI

     FILE 'REGISTRY' ENTERED AT 11:22:50 ON 01 JUL 2005
L9               STR
L10           0 SEA SSS SAM L9

     FILE 'LREGISTRY' ENTERED AT 11:24:19 ON 01 JUL 2005
L11              STR L9
L12           0 SEA SSS SAM L11
L13           0 SEA SSS FUL L11

     FILE 'REGISTRY' ENTERED AT 11:25:00 ON 01 JUL 2005
                D QUE L9

     FILE 'CAPLUS' ENTERED AT 11:26:49 ON 01 JUL 2005
                SET LINE 250
                SET DETAIL OFF
                E US2004-815727/AP,PRN 25
                SET NOTICE 1000 SEARCH
L14             1 SEA ABB=ON  US2004-815727/AP
                SET NOTICE LOGIN SEARCH
                SET LINE LOGIN
                SET DETAIL LOGIN
                D SCAN
                SEL RN

     FILE 'REGISTRY' ENTERED AT 11:27:38 ON 01 JUL 2005
L15          22 SEA ABB=ON  (25322-68-3/BI OR 25322-69-4/BI OR 11029-61-1/BI
                OR 123632-39-3/BI OR 1344-09-8/BI OR 1405-97-6/BI OR 25189-55-3
                /BI OR 30551-89-4/BI OR 4235-95-4/BI OR 477-73-6/BI OR
                50-70-4/BI OR 56-81-5/BI OR 56092-81-0/BI OR 57-88-5/BI OR
                69-79-4/BI OR 7440-09-7/BI OR 7440-70-2/BI OR 7631-86-9/BI OR
                7803-62-5/BI OR 9003-05-8/BI OR 9003-47-8/BI OR 9004-54-0/BI)
                D SCAN

     FILE 'STNGUIDE' ENTERED AT 11:27:54 ON 01 JUL 2005

     FILE 'REGISTRY' ENTERED AT 11:29:23 ON 01 JUL 2005
L16           0 SEA SSS SAM L9
L17           1 SEA SSS FUL L9
                D SCAN
                D LC

     FILE 'CAPLUS' ENTERED AT 11:30:18 ON 01 JUL 2005
L18           1 SEA ABB=ON  L17
                D SCAN

     FILE 'REGISTRY' ENTERED AT 11:31:11 ON 01 JUL 2005
                D STA QUE L9

     FILE 'CAPLUS' ENTERED AT 11:31:11 ON 01 JUL 2005
```

D QUE NOS L18
D IBIB ED ABS HITSTR L18

FILE 'HOME' ENTERED AT 11:31:35 ON 01 JUL 2005
D STA QUE L9

FILE HOME

FILE REGISTRY
Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 30 JUN 2005 HIGHEST RN 853560-59-5
DICTIONARY FILE UPDATES: 30 JUN 2005 HIGHEST RN 853560-59-5

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TSCA INFORMATION NOW CURRENT THROUGH JANUARY 18, 2005

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****
* *
* The CA roles and document type information have been removed from *
* the IDE default display format and the ED field has been added, *
* effective March 20, 2005. A new display format, IDERL, is now *
* available and contains the CA role and document type information. *
* *
****

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. For more information enter HELP PROP at an arrow prompt in the file or refer to the file summary sheet on the web at:
http://www.cas.org/ONLINE/DBSS/registryss.html

FILE CAPLUS

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FILE COVERS 1907 - 1 Jul 2005 VOL 143 ISS 2
FILE LAST UPDATED: 30 Jun 2005 (20050630/ED)

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FILE USPATFULL

FILE COVERS 1971 TO PATENT PUBLICATION DATE: 28 Jun 2005 (20050628/PD)
FILE LAST UPDATED: 28 Jun 2005 (20050628/ED)
HIGHEST GRANTED PATENT NUMBER: US6912726
HIGHEST APPLICATION PUBLICATION NUMBER: US2005138714
CA INDEXING IS CURRENT THROUGH 28 Jun 2005 (20050628/UPCA)
ISSUE CLASS FIELDS (/INCL) CURRENT THROUGH: 28 Jun 2005 (20050628/PD)
REVISED CLASS FIELDS (/NCL) LAST RELOADED: Apr 2005
USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE: Apr 2005

>>> USPAT2 is now available. USPATFULL contains full text of the <<<
>>> original, i.e., the earliest published granted patents or <<<
>>> applications. USPAT2 contains full text of the latest US <<<
>>> publications, starting in 2001, for the inventions covered in <<<
>>> USPATFULL. A USPATFULL record contains not only the original <<<
>>> published document but also a list of any subsequent <<<
>>> publications. The publication number, patent kind code, and <<<
>>> publication date for all the US publications for an invention <<<
>>> are displayed in the PI (Patent Information) field of USPATFULL <<<
>>> records and may be searched in standard search fields, e.g., /PN, <<<
>>> /PK, etc. <<<

>>> USPATFULL and USPAT2 can be accessed and searched together <<<
>>> through the new cluster USPATALL. Type FILE USPATALL to <<<
>>> enter this cluster. <<<
>>> <<<
>>> Use USPATALL when searching terms such as patent assignees, <<<
>>> classifications, or claims, that may potentially change from <<<
>>> the earliest to the latest publication. <<<

This file contains CAS Registry Numbers for easy and accurate substance identification.

FILE CASREACT
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FILE CONTENT:1840 - 26 Jun 2005 VOL 142 ISS 26

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****
*
* CASREACT now has more than 9.2 million reactions *
*
****

Some CASREACT records are derived from the ZIC/VINITI database (1974-1991) provided by InfoChem, INPI data prior to 1986, and Biotransformations database compiled under the direction of Professor Dr. Klaus Kieslich.

This file contains CAS Registry Numbers for easy and accurate substance identification.

FILE CAOLD
FILE COVERS 1907-1966
FILE LAST UPDATED: 01 May 1997 (19970501/UP)

This file contains CAS Registry Numbers for easy and accurate

substance identification. Title keywords, authors, patent assignees, and patent information, e.g., patent numbers, are now searchable from 1907-1966. TIFF images of CA abstracts printed between 1907-1966 are available in the PAGE display formats.

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This file supports REGlstRY for direct browsing and searching of all substance data from the REGISTRY file. Enter HELP FIRST for more information.

FILE LREGISTRY
LREGISTRY IS A STATIC LEARNING FILE

NEW CAS INFORMATION USE POLICIES, ENTER HELP USAGETERMS FOR DETAILS.

FILE STNGUIDE
FILE CONTAINS CURRENT INFORMATION.
LAST RELOADED: Jun 24, 2005 (20050624/UP).

=>